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**CLAIMS:**

1. A down converter (100), comprising:
  - 5 an interface section, which connects the down converter to at least one switch (104), and each switch is connected to a respective driver circuit (102), wherein the current driver circuits and the switches are disposed on a common integrated circuit (200).
- 10 2. A down converter as recited in claim 1, wherein each of the at least one driver circuit is a high-current driver circuit (102), and each of the at least switches is a power switch (104).
3. A down converter as recited in claim 1, wherein the interface section is
  - 15 monolithically integrated with the at least one power switch.
4. A down converter as recited in claim 1, wherein the down converter includes a high-side current driver (102), which is connected to a high-side power switch (104).
- 20 5. A down converter as recited in claim 1, wherein the down converter includes a low-side current driver (103), which is connected to a low-side power switch (105).
6. A down converter as recited in claim 4, wherein the high side current driver is connected to a level shifter (102).
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7. A down converter as recited in claim 5, wherein a decoder (106) is connected to the low side block and to a level shifter.
8. A down converter as recited in claim 4, wherein the high-side current driver is a
  - 30 CMOS device (202, 203).

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9. A down converter as recited in claim 5, wherein the low-side current driver is a CMOS device (214, 215).

10. A down converter as recited in claim 1, wherein a parasitic inductor between a  
5 current driver circuit and a switch is on the order of approximately 1 nH or less.

11. A down converter as recited in claim 1, wherein the integrated circuit is a silicon-based integrated circuit.

10 12. A down converter as recited in claim 1, wherein the integrated circuit is a SiGe-based integrated circuit.

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